

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions or listings of claims for this application.

Listing of Claims:

1. (Currently amended) An image sensor, comprising:

a plurality of ~~units~~ pixels, ~~each unit associated with accepting a pixel of an image, and each unit pixel~~ having a photoreceptor therein, a follower transistor~~[[,]]~~ connected to said photoreceptor, a select transistor connected to said ~~photoreceptor~~ follower transistor, and a reset transistor which controls applying a reset level;

a first bias line providing power to at least one of said transistors for a first ~~unit pixel~~, and a second bias line providing power to another of said transistors~~[[,]]~~ different than said one of said transistors of said first ~~unit pixel~~, such that said one and said another transistors are separately powered by separate bias lines, wherein a gate of said reset transistor of a first pixel is connected to a first reset/select line, and a gate of said select transistor of a second pixel is connected to said first reset/select line.
2. (Original) An image sensor as in claim 1 wherein said first bias line powers the follower transistor and said second bias line powers a reset transistor.
3. (Original) An image sensor as in claim 1 wherein said photoreceptor is a photodiode.
4. (Canceled).

5. (Currently amended) An image sensor as in claim 1 wherein said sensor is an active pixel sensor, formed of transistors which are compatible with CMOS techniques, ~~and each of a plurality of pixels of which includes an in pixel follower transistor an in pixel selection transistor and an in pixel reset transistor.~~
6. (Currently amended) An image sensor as in claim 5 wherein said select and reset transistors are connected to said first bias ~~source~~ line and said follower transistors connected to said second bias ~~source~~ line.
7. (Currently amended) ~~An image sensor as in claim 6~~ An active pixel sensor, comprising:

a plurality of pixels formed of transistors which are compatible with CMOS techniques, each pixel associated with accepting a pixel of an image, and each pixel comprising:

a photoreceptor therein,

an in-pixel follower transistor connected to said photoreceptor,

an in pixel select transistor connected to said follower transistor,

and an in pixel reset transistor which controls applying a reset level;

a first bias line providing power to at least one of said transistors for a first pixel; and

a second bias line providing power to another of said transistors different than said one of said transistors of said first pixel, such

that said one and said another transistors are separately powered by separate bias lines;

wherein said second bias ~~source~~ line is connected commonly to a first plurality of ~~followers~~ follower transistors in a first row of said pixels and a second plurality of reset transistors in a second row of pixels different than said first row of pixels.

8. (Original) An image sensor as in claim 1 wherein said photoreceptor is a photogate, and further comprising a floating diffusion portion in the substrate connected to said follower transistor, and further comprising a transfer gate, coupled between said photogate and said floating diffusion, which is activated to allow charge in said photogate to dump into said floating diffusion.
9. (Original) An image sensor as in claim 8 further comprising a reset diffusion storing a reset level, and wherein said reset transistor is connected between said floating diffusion and said reset level.
10. (Canceled).
11. (Currently amended) A sensor as in claim ~~[[10]]~~ wherein said photoreceptor is connected between a reset transistor ~~of first line,~~ and a follower ~~of a second line different than said first line~~ transistor.
12. (Currently amended) A sensor as in claim ~~[[10]]~~ further comprising a dynamic mode read out transistor~~[[,]]~~ associated with at least one of said ~~biasing connections~~ bias lines, and

allowing said at least one biasing connection bias line to be active for only a part, ~~but not all~~, of a frame period.

13. (Currently amended) A sensor as in claim [[10]]Z further comprising a connection which is configured such that when said connection is activated to cause said pixels to be referenced to a ground reference[,] and when said connection is opened to cause said pixels to be floated.
14. (Currently amended) An active pixel sensor comprising:

an array of pixels, each pixel ~~including~~ comprising a photosensor photoreceptor, and at least first and second transistors associated with said ~~photosensor-photoreceptor~~ in said each pixel, said first transistor connected to receive power from a first power supply source over a first line, and said second transistor connected to receive power from a second power supply source over a second line totally separate from said first power supply line, wherein said first transistor of a first pixel and said second transistor of a second pixel are connected to said first line.
15. (Original) A sensor as in claim 14, wherein said first transistor and said second transistor have drains which are not electrically connected.
16. (Currently amended) A sensor as in claim 14, further comprising a steady state current generator[,]for providing a first, ~~“on”~~ mode connecting ~~the~~ columns to ground and a second ~~“off”~~ mode which provides floating columns.

Claims 17-21 (Canceled).

22. (New) An image sensor comprising:
- a first pixel, said first pixel comprising a first photoreceptor, a first follower transistor having a gate connected to said first photoreceptor, a drain of said first follower transistor connected to a first line, and a first reset transistor, a drain of said first reset transistor connected to a second line; and
- a second pixel, said second pixel comprising a second photoreceptor, a second follower transistor having a gate connected to said second photoreceptor, a drain of said second follower transistor connected to said second line, and a second reset transistor, a drain of said second reset transistor connected to a third line.
23. (New) The image sensor as in claim 22 wherein said first second and third lines are power supply lines.
24. (New) The image sensor as in claim 22 wherein said first second and third lines are connected to a same power supply.
25. (New) The image sensor as in claim 22 wherein said first pixel further comprises a first select transistor connected to said first follower transistor, said second pixel further comprises a second select transistor connected to said second follower transistor.
26. (New) The image sensor as in claim 25 wherein said second select transistor and said first reset transistor each have a gate connected to a first reset/select line.
27. (New) The image sensor as in claim 1 wherein a gate of said first select transistor is connected to a second reset/select line.

28. (New) The image sensor as in claim 27 wherein a gate of said select transistor of said second pixel is connected to a third reset/select line.